AMENDMENTS TO THE CLAIMS

1. (Currently Amended) For a digital television packet stream having a plurality of different types of tables, a method to determine issuance intervals for a plurality of event information tables (EITs) to be transmitted in sequence, wherein the EITs are assigned to cover different ranges of broadcasting time, and an issuance interval for an EIT is a period at which the corresponding EIT is issued ~~like types of said tables, respectively, that do not all have fixed issuance intervals~~, the method comprising:

setting the issuance intervals for the EITs ~~like types of said tables~~, respectively, to be non-uniform based on the range of broadcasting time which each of the EITs is assigned to cover,

wherein among the EITs, the issuance interval for an EIT covering a range of broadcasting time nearer a current time is set to be less than the issuance interval for an EIT covering a range of broadcasting time further in the future.

2. (Canceled)

3. (Canceled)

4. (Currently Amended) ~~The method of claim 1~~, For a digital television packet stream having a plurality of different types of tables, a method to determine issuance intervals for a plurality of event information tables (EITs), the method comprising:

setting the issuance intervals for the EITs, respectively, to be non-uniform, wherein an ~~each~~ issuance interval between any two adjacent instances of an i^{th} EIT ~~table~~ is determined according to the following equation:

$$\text{interval}(i^{th}\ \text{EIT}\ \text{table}) = \text{root\_time} + (\text{increment\_time})*i,$$

wherein interval(i^{th} EIT ~~table~~) is the interval between any two adjacent instances of the

i^{th} EIT ~~table~~, root_time is a predetermined interval for the EIT ~~table~~ corresponding most closely in time to the present, increment_time is a non-zero scalar and i is a non-zero integer.

5. (Canceled)

6. (Currently Amended) A program and system information protocol (PSIP) generator to generate tables for a digital television system packet stream, the generator comprising:

an interface to supply ~~receive at least one~~ issuance-interval setting information ~~parameter for like tables~~ required for setting issuance intervals respectively for a plurality of event information tables (EITs) to be transmitted in sequence, wherein an issuance interval for an EIT is a period at which the corresponding EIT is issued, and the issuance-interval setting information is an assignment of each of the EITs to cover one of different ranges of broadcasting time; and

a non-uniform interval determination ~~calculation~~ unit to determine non-uniform issuance intervals respectively for the EITs, ~~unassigned interval ones of said tables~~ based upon the issuance-interval setting information, ~~said at least one issuance parameter~~

wherein among the EITs, the issuance interval for an EIT covering a range of broadcasting time nearer a current time is set to be less than the issuance interval for an EIT covering a range of broadcasting time further in the future.

7. (Canceled)

8. (Canceled)

9. (Currently Amended) ~~The PSIP generator of claim 6,~~ A program and system information protocol (PSIP) generator to generate tables for a digital television system packet stream, the generator comprising:

an interface to supply issuance-setting information required for setting issuance intervals for a plurality of event information tables (EITs) to be transmitted in sequence; and

a non-uniform interval determination unit to determine non-uniform issuance intervals respectively for the EITs based upon the issuance-setting information,

wherein among the EITs, an ~~each~~ issuance interval between any two adjacent instances of an i^{th} EIT ~~table~~ is determined according to the following equation:

interval(i^{th} EIT ~~table~~) = root_time + (increment_time)*i,

wherein interval(i^{th} EIT ~~table~~) is the interval between any two adjacent instances of the i^{th} EIT table, root_time is a predetermined interval for the EIT ~~table~~ corresponding most closely in time to the present, increment_time is a non-zero scalar and i is a non-zero integer~~, and wherein said at least one issuance parameter is at least one of said root_time and said increment_time~~.

10. (Canceled)

11. (Original) The PSIP generator of claim 6, wherein said PSIP generator is embodied in the form of a processor running software.

12. (Previously presented) The PSIP generator of claim 11, wherein said software is written in the computer language Java.

13. (Currently Amended) A processor-readable article of manufacture having embodied thereon software comprising a plurality of code segments to perform the method of ~~any one of~~ claim 1~~, respectively~~.

14. (Original) A processor-readable article of manufacture having embodied thereon software comprising a plurality of code segments to cause a processor to perform the

functional aspects of the program and system information protocol (PSIP) generator of claim 6.

15. (New) The method of claim 1, wherein the EITs include EIT-0, EIT-1, and EIT-2.

16. (New) The method of claim 15, wherein in the setting step, the issuance intervals are set respectively for EIT-0, EIT-1, and EIT-2 to increase as the EIT table number increases.

17. (New) The PSIP generator of claim 6, wherein the EITs include EIT-0, EIT-1, and EIT-2.

18. (New) The PSIP generator of claim 17, wherein the non-uniform interval determination unit determines to increase the issuance intervals respectively for EIT-0, EIT-1, and EIT-2 as the EIT table number increases.

19. (New) A method of determining transmission cycles of a group of event information tables (EITs) including at least EIT-0, EIT-1, and EIT-2, the method comprising:

setting the transmission cycles of the group of EITs to be non-uniform with respect to each other, based on closeness in coverage time to which each EIT in the group of EITs is assigned, to a current broadcasting time,

wherein among the group of EITs, the transmission cycle of an EIT assigned to a coverage time nearer the current time is set to be less than the transmission cycle of an EIT assigned to a coverage time further in the future from the current broadcasting time.

20. (New) The method of claim 19, wherein in the setting step, the transmission cycles are set respectively for EIT-0, EIT-1, and EIT-2 in the group of EITs to increase as the EIT

table number increases.

21. (New) A method of determining transmission cycles of a group of different event information tables (EITs) including at least EIT-0, EIT-1, and EIT-2, the method comprising:

systematically incrementing the transmission cycles of the group of EITs to be non-uniform with respect to each other, based on closeness in coverage time to which each EIT in the group of EITs pertains, to a currently broadcasting time,

wherein among the group of EITs, the transmission cycle of an EIT pertaining to a coverage time nearer the current broadcasting time is set to be less than the transmission cycle of an EIT pertaining to a coverage time further in the future from the currently broadcasting time.

22. (New) A method of determining issuance intervals for tables to be included in a digital television packet stream, the method comprising:

setting issuance intervals for a plurality of event information tables (EIT_0 , EIT_1 , and EIT_2) to be transmitted in sequence according to the following condition:

issuance interval (EIT_{i-1}) < issuance interval (EIT_i) for i=1 and 2,

wherein an issuance interval for an EIT is a period at which the corresponding EIT is issued within a packet stream, and a range of broadcasting time covered by EIT_{i-1} is prior to a range of broadcasting time covered by EIT_i.

23. (New) A program and system information protocol (PSIP) generator to generate tables for a digital television system packet stream, the generator comprising:

an issuance interval determination unit to set issuance intervals for a plurality of event information tables (EIT_0 , EIT_1 ,and EIT_2) to be transmitted in sequence according to the

following condition:

issuance interval (EIT_{i-1}) < issuance interval (EIT_i) for i=1 and 2,

wherein an issuance interval for an EIT is a period at which the corresponding EIT is issued within a packet stream, and a range of broadcasting time covered by EIT_{i-1} is prior to a range of broadcasting time covered by EIT_i.

24. (New) A method of determining transmission cycles for tables to be transmitted as part of a digital television packet stream, the method comprising:

setting transmission cycles for a plurality of event information tables (EIT_0, EIT_1, and EIT_2) to be transmitted according to the following condition:

transmission cycle (EIT_{i-1}) < transmission cycle (EIT_i) for i=1 and 2,

wherein a transmission cycle for an EIT is a period at which the corresponding EIT is transmitted, and a range of broadcasting time covered by EIT_{i-1} is prior to a range of broadcasting time covered by EIT_i.

25. (New) A program and system information protocol (PSIP) generator to generate tables to be transmitted as part of a digital television packet stream, the method comprising:

a transmission cycle determination unit to set transmission cycles for a for a plurality of event information tables (EIT_0, EIT_1, and EIT_2) to be transmitted in sequence according to the following condition:

transmission cycle (EIT_{i-1}) < transmission cycle (EIT_i) for i=1 and 2,

wherein a transmission cycle for an EIT is a period at which the corresponding EIT is transmitted, and a range of broadcasting time covered by EIT_{i-1} is prior to a range of

broadcasting time covered by EIT_i.

26. (New) A digital television (DTV) signal for use in a digital broadcast receiver, the DTV signal comprising:

a DTV packet stream including a plurality of event information tables (EITs) to be transmitted in sequence, the EITs being assigned to cover different ranges of broadcasting time, wherein the EITs are issued periodically within the packet stream at non-uniform periods, respectively, such that an issuance period for an EIT covering a range of broadcast time nearer a current time is set to be less than an issuance period for an EIT covering a range of broadcasting time further in the future.

27. (New) A digital television (DTV) signal for use in a digital broadcast receiver, the DTV signal comprising:

a DTV packet stream including a plurality of event information tables (EIT_0, EIT_1, and EIT_2) to be transmitted in sequence, which are periodically repeated within the packet stream at non-uniform transmission cycles, respectively, according to the following condition:

transmission cycle (EIT_{i-1}) < transmission cycle (EIT_i) for i=1 and 2,

wherein a transmission cycle for an EIT is a frequency at which the corresponding EIT is transmitted, and a range of broadcasting time covered by EIT_{i-1} is prior to a range of broadcasting time covered by EIT_i.